



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 0 880 936 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
24.03.1999 Bulletin 1999/12

(51) Int. Cl.⁶: **A61B 5/00**

(43) Date of publication A2:
02.12.1998 Bulletin 1998/49

(21) Application number: **97118979.0**

(22) Date of filing: **30.10.1997**

(84) Designated Contracting States:
**AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC
NL PT SE**

(30) Priority: **29.05.1997 JP 139805/97**
06.10.1997 JP 272651/97

(71) Applicant: **Akai, Koji**
Kamakura-shi, Kanagawa-ken (JP)

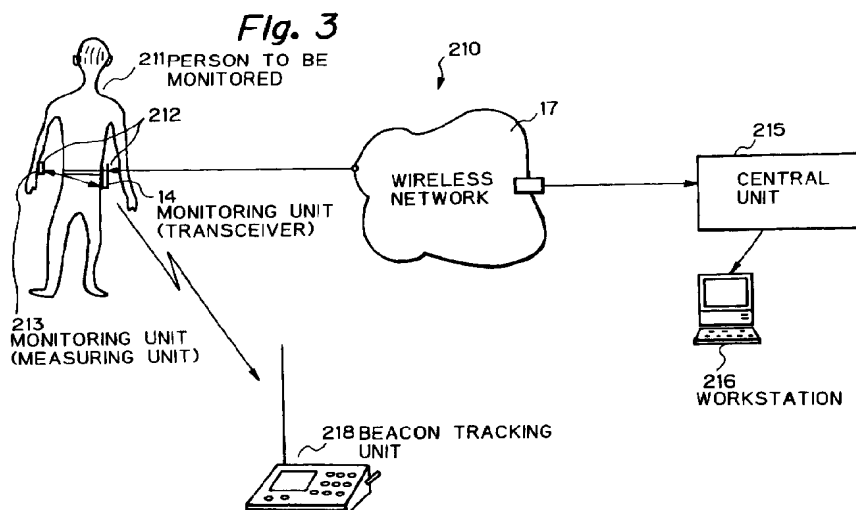
(72) Inventor: **Akai, Koji**
Kamakura-shi, Kanagawa-ken (JP)

(74) Representative:
Wagner, Karl H., Dipl.-Ing. et al
WAGNER & GEYER
Patentanwälte
Gewürzmühlstrasse 5
80538 München (DE)

(54) **Monitoring physical condition of a patient by telemetry**

(57) A system (110,210) for remotely monitoring the current location and physical condition/parameters of a specific person on a real time basis includes the non-invasive detection of the blood glucose level. A terminal unit (112,212) attached to the person's body is, via a radio network (217), in communication with a central unit (130,215) located at a medical institute of the area.

The detection of vital signs including the blood glucose level is continuously and intermittently effected by the terminal unit (112,212). Once an emergency situation arises, an alarm signal will automatically be transmitted to the central unit (130,215) regardless of the action and intention of the person.



EP 0 880 936 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 97 11 8979

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	US 5 544 651 A (P. J. WILK) 13 August 1996	1,2,10	A61B5/00
Y	* column 2, line 27 - line 47 *	3,5-9	
A	* column 5, line 12 - line 35 *		
	* column 9, line 50 - column 10, line 31 *	3,4	

Y	US 5 462 051 A (T. OKA ET AL) 31 October 1995	3,5,8	
A	* column 5, line 31 - column 7, line 28 *		
	* column 8, line 60 - line 66 *	1-4,6	

Y	"THE MODERN MEDICAL BATTLEFIELD: SEQUITUR ON ADVANCED MEDICAL TECHNOLOGY" IEEE ROBOTICS & AUTOMATION MAGAZINE, vol. 1, no. 3, 1 September 1994, pages 21-25, XP000471440	5-9	
A	* the whole document *	1-4,10	TECHNICAL FIELDS SEARCHED (Int.Cl.6) A61B
Y	EP 0 680 727 A (BOEHRINGER MANNHEIM GMBH) 8 November 1995	1-3,10	
A	* column 5, line 20 - column 6, line 14 *	4,5	
	* column 7, line 51 - column 9, line 43 *		

Y	EP 0 770 349 A (N. AKASAKA ET AL) 2 May 1997	1-3,10	
A	* column 3, line 24 - column 4, line 27 *	4,5	

The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 28 January 1999	Examiner Geffen, N
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/82 (P04/C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 97 11 8979

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

28-01-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5544651 A	13-08-1996	US 5415167 A	16-05-1995
US 5462051 A	31-10-1995	NONE	
EP 0680727 A	08-11-1995	DE 4415896 A	09-11-1995
		AU 674474 B	19-12-1996
		AU 1763495 A	07-12-1995
		CA 2148569 A	06-11-1995
		CN 1128353 A	07-08-1996
		FI 952131 A	06-11-1995
		HU 75243 A	28-05-1997
		IL 113569 A	04-01-1998
		JP 7311196 A	28-11-1995
		NO 951754 A	06-11-1995
		NZ 272000 A	24-04-1997
		US 5507288 A	16-04-1996
EP 0770349 A	02-05-1997	JP 9075310 A	25-03-1997
		JP 9122083 A	13-05-1997